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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/089,148	03/27/2002	Jochim Rheinheimer	50792	9823
26474	7590	02/11/2004		
KEIL & WEINKAUF 1350 CONNECTICUT AVENUE, N.W. WASHINGTON, DC 20036			EXAMINER COPPINS, JANET L	
			ART UNIT	PAPER NUMBER
			1625	

DATE MAILED: 02/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,148

Applicant(s)

RHEINHEIMER ET AL.

Examiner

Janet Coppins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9, 11 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-9 is/are rejected.
- 7) ☒ Claim(s) 2 and 14-16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/23/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1-16 pending in the instant application.

Response to Amendment

1. Receipt is acknowledged of Applicant's Amendment and Response, submitted December 1, 2003, which has been reviewed by the Examiner and entered of record in the file.

Accordingly, claims 10, 12, and 13 have been cancelled and claims 11 and 16 have been amended. In addition, the Examiner appreciates Applicants' clarification of the listing of pending claims in the case. Therefore, claims 1-9, 11, and 14-16 are now pending.

Election/Restrictions

3. Applicant's election with traverse of **Group I** (claims 1-9 and 14-16), in the Response of 12/1/03, is acknowledged. The traversal is on the grounds that:

(a) the intermediate of formula (IV) of claim 11 incorporates an essential structural element into the final product of formula (I), (as apparent from the highlighted portion of formula (I), depicted on page 4 of Applicants' response), and

(b) the intermediate of formula (IV) and the final product of formula (I) are technically interrelated in that the final product is manufactured directly from the intermediate as, for example, illustrated by the last section of claim 14.

Applicants direct the Office's attention to PCT Rule 13.2, MPEP § 1893.03 and Annex B, Part 1, section (g) ((ii)A-B) in Appendix I of the MPEP wherein the criteria for unity of invention in the context of intermediate and final product is discussed. Applicants argue that the claimed formula (I) inheres a common chemical structure that occupies a large portion of the intermediates of formula (IV) as well as a structurally distinctive portion in view of existing prior

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art. Applicants argue that the fact that the final products (claims 1-9) can be made by methods which do not involve Applicants' intermediate (claim 11) is not seen to reflect in any way on the question whether the intermediate and the final product are technically related involving one or more of the same or corresponding special technical features as provided by PCT Rule 13.2, and shall not alone be considered to be justification for a finding of a lack of unity of invention.

4. Applicants' arguments have been considered but have not been found persuasive. The Examiner directs the Applicants' attention to Annex B, Part 1(b), which indicates that "special technical features" means those technical features that, as a whole, define a contribution over the prior art. A significant structural element which is shared by all of the alternatives is not present in the compounds of formula (I) and (IV). The (cyclopropyl)-amidoxime moiety, as highlighted in Applicants' response and identified as the special technical feature, is not a significant structural element that defines a contribution over the prior art. For example, please refer to the compounds according to formula (I) of JP 10-95771 wherein R is cyclopropyl and A is heteroaryl. Therefore the Applicants have not fulfilled the requirements of Annex B, Part 1 since a significant structural element does not exist among the compounds of formulae (I) and (IV). Therefore, the unity of invention is still considered to be lacking.

The requirement is still deemed proper and is therefore made FINAL.

5. Claim 11 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. It is suggested that in order to advance prosecution, the non-elected subject matter be canceled when responding to this Office Action.

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Information Disclosure Statement

6. Receipt is acknowledged of Applicants' Information Disclosure Statement, submitted July 23, 2002, which is in compliance with the provisions of 37 CFR 1.97. Accordingly, the IDS has been considered by the Examiner and entered of record in the file.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an agent for controlling certain types of fungal plant diseases utilizing a stabilized fungicidal composition, does not reasonably provide enablement for an agent which treats *all* harmful fungi through use of the composition. In *In re Wands*, 8 USPQ2d 1400 (1988), factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. § 112, first paragraph, have been described. They are:

1. the nature of the invention,
2. the state of the prior art,
3. the predictability or lack thereof in the art,
4. the amount of direction or guidance present,
5. the presence or absence of working examples,
6. the breadth of the claims,
7. the quantity of experimentation needed, and
8. the level of the skill in the art.

9. In the instant case, applicants are claiming a compound that is an agent for "controlling harmful fungi" by treating the fungi itself, their habitat, etc. The nature of the invention is of a fungicidal composition for the treatment of certain harmful fungi, i.e. *Erysiphe graminis*. As stated, however, the claim asserts that the composition is capable of controlling *all* such plant

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diseases since the broad terminology “harmful fungi” is recited. The state of the art does not teach the absolute control of all harmful fungi using any one fungicidal composition. Thus any claim directed to controlling all harmful fungi is highly unpredictable given the current state of the art. The disclosure teaches using the instant compound against phytopathogenic fungi, such as Deuteromycetes, Ascomycetes, Phycomycetes and Basidiomycetes and the 20+ plant diseases listed on page 24 of the specification. Because the current application does not provide sufficient guidance to one of ordinary skill in the art as to the control of other harmful fungi **not** listed above, the quantity of experimentation for such a broad claim directed to the generic terminology “harmful fungi” is considered to be undue and thus, not enabled. Thus, without working examples or proper guidance as how to use the claimed compound for the treatment of such other harmful fungi as not disclosed in the specification, it would require undue experimentation by one skilled in the art to use the compound as disclosed for controlling harmful fungi other than those disclosed in the specification. In order to obviate the rejection, the Examiner suggests incorporating the harmful fungi/plant diseases that are enabled in the specification into the claim.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35

U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
13. Claims 1 and 3-9 (in part) rejected under 35 U.S.C. 103(a) as being unpatentable over Homare, Yamanaka JP10-95771.

Applicants claim the following compound and process:

Benzamidoxime derivatives according to formula (I) of claim 1, with fungicidal activity.

Determination of the scope and content of the prior art (MPEP 2141.01)

The JP patent teaches amidoxime compounds according to formula (I) that are useful as agricultural and horticultural germicides.

Ascertainment of the difference between the prior art and the claims (MPEP 2141.02)

The difference between the JP reference patent and the instant invention is the linkage between the "A" moiety and the amidoxime-cyclopropyl structure of formula (I), i.e. the

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reference teaches a direct linkage while the Applicants recite an alkenylene group, such as a –CH₂– linkage for the “Y” moiety. The compounds differ from each other by a –CH₂– unit, which makes them members of a homologous series.

Finding of prima facie obviousness-rationale and motivation MPEP (2142-2143)

Homologs are defined as a family of chemically related compounds that vary from member to member by the addition of a single unit, in this case, the –CH₂– unit, which causes the members to be obvious variants of each other. To those skilled in chemical art, one homolog is not such an advance over another adjacent member of the series, since the compounds are of such close structural similarity that one skilled in the art, knowing properties of one member of the series, would in general know what to expect in adjacent members. In re Henze, 85 USPQ 261 (1950).

Both references teach amidioxime compounds with fungicidal activity that are useful for controlling certain types of harmful fungi in a variety of crops, and list many of the same plant diseases that can be treated with said compounds, please refer to page 24 of the instant specification and to pages 43-44 of the JP disclosure. Therefore, absent a showing of unobviousness or unexpected properties, the instant claimed compounds would have been obvious because one skilled in the art would have been motivated to prepare homologs of the compounds taught in the reference with the expectation of obtaining compounds which could be used in fungicidal compositions. The addition or omission of the –CH₂– group has no bearing on the fungicidal activity of the instant claimed compounds. Therefore, the instant claimed compounds would have been suggested to one skilled in the art. It would have been prima facie obvious to one of ordinary skill in the art at the time of filing the application to modify the

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fungicidal amidoxime compounds of the JP patent, with the expectation of obtaining similar amidoxime compounds useful for controlling certain plant diseases and harmful fungi.

Claim Objections

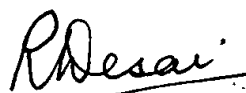
14. Claims 2 and 14-16 objected to as being dependent upon a rejected base claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janet L. Coppins whose telephone number is 571.272.0680. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Joseph McKane (acting for Alan L. Rotman) can be reached on 571.272.0699. The fax phone number for the organization where this application or proceeding is assigned is 703.746.9036.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.308.1235.

Janet L. Coppins
February 7, 2004

for 
Alan L. Rotman *Joseph McKane*
Supervisory Patent Examiner, A.U. 1625